

MANAGEMENT

AND

USES

OF

BLUE PANICUM

Panicum antidotale



Blue panicum inflorescence and components, A—open panicle inflorescence, B—branchlet of inflorescence, C—spikelet showing glumes and sterile lemma, D—spikelet spread open with caryopsis removed, E—fertile floret, palea view, and F—caryopsis.

DESCRIPTION

Blue panicum was first introduced into the United States from Australia in 1912. It is a tall, warm-season perennial grass with branching stems, 6 to 9 ft (2 to 3 M) tall. Seeds are produced on open panicles, 20 to 30 cm long. It develops an extensive root system and forms large bunches from short, coarse rhizomes.

VARIETIES

A-130 blue panicum was released in 1950 by the SCS Plant Materials Center and the Arizona Agricultural Experiment Station, in Tucson, Arizona.

P-15630 blue panicum was introduced into the United States from Afghanistan. It has a similar growth form, but initial tests suggest that it may be more cold-tolerant.

Seedling Drought Tolerant (SDT) blue panicum was developed in a growth chamber by Dr. Neal Wright, AR-SEA, University of Arizona, Tucson, Arizona. Field testing is needed to determine its range of adaptation.

ADAPTATION

Blue panicum is well adapted on deep alluvium (medium to fine textured) soils where irrigation water is available, or on flood plains where frequent flooding occurs. Established stands of blue panicum will persist under low precipitation

conditions or extended periods of drought. The lower limits of the precipitation zone have not been fully determined in Arizona.

Winter injury on A-130 blue panicum has been recorded where temperatures below 10° F (-12° C) occurred for prolonged periods of time.

USES

Blue panicum is well suited for use as a warm season pasture grass. It is palatable for sheep and cattle, but not for horses, except as hay. Yields of over 9 tons per acre have been harvested from established plantings. For maximum production, 100 pounds of available nitrogen and 6 acre feet of irrigation water are required in southern Arizona.

Seeds of blue panicum are used by upland game birds (doves), song birds (horned lark, pyrrnuloxia), and sparrows. It is also used by antelope and California jackrabbits.

ESTABLISHMENT

Seed as soon as possible after the night temperatures reach 60° F (16° C) or higher. There are 651,000 pure live seeds (PLS) in a pound of pure seed. Seeds should be row-planted ½" deep, with 20- to 24-inch row spacing. A regular grain drill can be used by plugging alternate drill holes. For 20-inch rows, 2.75 pounds PLS are needed; for 24-inch row spacing, 2.25 pounds PLS are needed. The above planting rates will provide 20 live seeds per linear foot of row. If other row spacings are used, the seeding rate should be adjusted. Seeding should be done on a firm, weed-free seedbed.

MANAGEMENT

New plantings should be mowed to stimulate rhizome production the first year. Grazing on established stands should begin before seedheads form. An 8- to 10-inch (20- to 25-cm) stubble should be maintained. If not grazed uniformly, fields should be mowed; otherwise, cattle will strip the leaves and leave the coarse stems.